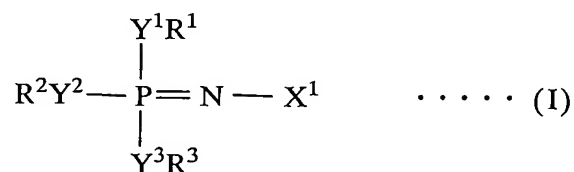


# CLAIMS

1. A separator for a non-aqueous electrolyte cell comprising a microporous film formed by adding a phosphazene derivative and/or an isomer of a phosphazene derivative to a polymer.

5 2. A separator for a non-aqueous electrolyte cell according to claim 1, wherein a total amount of the phosphazene derivative and/or the isomer of the phosphazene derivative added to 100 parts by mass of the polymer is 0.5-10 parts by mass.

3. A separator for a non-aqueous electrolyte cell according to  
10 claim 1, wherein the phosphazene derivative is a phosphazene derivative having a viscosity at 25°C of not more than 300 mPa · s (300 cP) and represented by the following formula (I) or (II):



(wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently a monovalent substituent or  
15 a halogen element; X<sup>1</sup> is a substituent containing at least one element selected from the group consisting of carbon, silicon, germanium, tin, nitrogen, phosphorus, arsenic, antimony, bismuth, oxygen, sulfur, selenium, tellurium and polonium; and Y<sup>1</sup>, Y<sup>2</sup> and Y<sup>3</sup> are independently  
a bivalent connecting group, a bivalent element or a single bond)

20 (NPR<sup>4</sup><sub>2</sub>)<sub>n</sub>      · · · · · (II)

(wherein R<sup>4</sup> is independently a monovalent substituent or a halogen element; and n is 3-15).

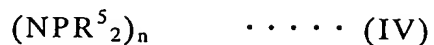
4. A separator for a non-aqueous electrolyte cell according to  
claim 3, wherein the phosphazene derivative of the formula (II) is a  
25 phosphazene derivative represented by the following formula (III):



(wherein n is 3-13)

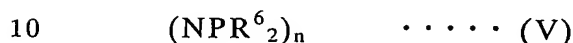
5. A separator for a non-aqueous electrolyte cell according to  
claim 3, wherein the phosphazene derivative of the formula (II) is a

phosphazene derivative represented by the following formula (IV):



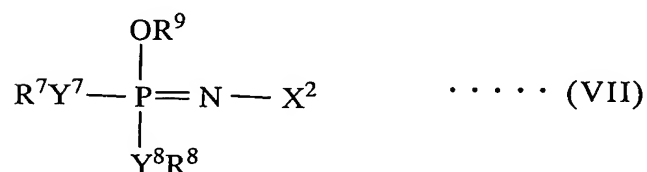
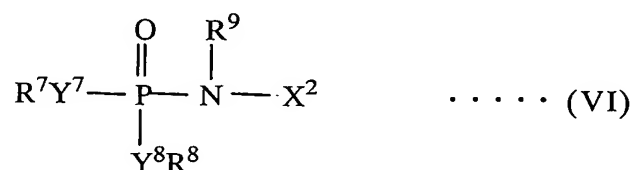
(wherein  $\text{R}^5$  is independently a monovalent substituent or fluorine, and at least one of all  $\text{R}^5$ s is a fluorine containing monovalent substituent or fluorine; and  $n$  is 3-8, provided that all  $\text{R}^5$ s are not fluorine).

6. A separator for a non-aqueous electrolyte cell according to claim 1, wherein the phosphazene derivative is a phosphazene derivative being a solid at 25°C and represented by the following formula (V):



(wherein  $\text{R}^6$  is independently a monovalent substituent or a halogen element; and  $n$  is 3-6).

7. A separator for a non-aqueous electrolyte cell according to claim 1, wherein the isomer of the phosphazene derivative is an isomer represented by the following formula (VI) and of a phosphazene derivative represented by the following formula (VII):



(in the formulae (VI) and (VII),  $\text{R}^7$ ,  $\text{R}^8$  and  $\text{R}^9$  are independently a monovalent substituent or a halogen element;  $\text{X}^2$  is a substituent containing at least one element selected from the group consisting of carbon, silicon, germanium, tin, nitrogen, phosphorus, arsenic, antimony, bismuth, oxygen, sulfur, selenium, tellurium and polonium; and  $\text{Y}^7$  and  $\text{Y}^8$  are independently a bivalent connecting group, a bivalent element or a single bond).

8. A separator for a non-aqueous electrolyte cell according to claim 1, wherein the polymer is a polyolefin.

9. A separator for a non-aqueous electrolyte cell according to claim 8, wherein the polyolefin is polyethylene or polypropylene.